

# TEXT SEARCHABLE DOCUMENT 00157009

## DATA EVALUATION RECORD

1. Chemical: Benodanil: 2-Iodobenzanilide
2. Test Material: Probably technical
3. Study Type: Freshwater fish acute toxicity  
Species tested: Guppy (Lebistes reticulatus)
4. Citation: BASF Ag. 1975. Investigation of the acute toxicity of benodanil to fish. Crop Protection Division, Research and Development. Limburgerhof. Submitted by Mallinckrodt, Inc., St. Louis, MO. EPA File Symbol 372-AU. Accession No. 261692.
5. Reviewed by: Carol M. Natella  
Wildlife Biologist  
EEB/HED  
Signature: *C. M. Natella*  
Date: *9-29-86*
6. Approved by: Harry Craven  
Supervisory Biologist  
EEB/HED  
Signature: *H. T. Craven*  
Date: *9/29/86*
7. Conclusions:  

The study is invalid. Information provided in the study is not adequate to allow for evaluation of study results.

This study could never fulfill the Guidelines requirements for an acute toxicity determination for a warmwater fish species because there are several departures from recommended protocol, such as the use of only 5 fish per concentration.
8. Recommendations: N/A.
9. Background: N/A.
10. Discussion of Individual Tests: N/A.



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11. Materials and Methods:

- a. Test Animals: Guppies (Lebistes reticulatus), with a bodyweight of 100 to 200 mg.
- b. Test System: Glass vessels containing 1000 mL of stale tap water with a temperature of 20 to 22 °C.
- c. Dose: Static bioassay.
- d. Design: 5 fish per vessel.
- e. Statistics: The LC<sub>50</sub> was determined in accordance with the method of Litchfield and Wilcoxon (1948).

12. Reported Results:

	<u>48 hours</u>	<u>96 hours</u>
LC <sub>50</sub>	11.2 ppm	9.6 ppm
Upper confidence limit of the LC <sub>50</sub>	9.9 ppm	8.2 ppm
Lower confidence limit of the LC <sub>50</sub> (P = 0.05)	12.7 ppm	11.2 ppm
Lower threshold of injury (0 % mort.)	5 ppm	5 ppm
Upper threshold of injury (100 % mort.)	50 ppm	50 ppm

13. Study Author's Conclusions:

96-hour LC<sub>50</sub> = 9.6 ppm.

14. Reviewer's Discussion and Interpretation of the Study:

- a. Test Procedures: There appear to be several departures from recommended protocols, among which are:
  - (1) The guppy is not a recommended test species.
  - (2) There appears to be only five fish per test level.
  - (3) No information is provided on water quality.
  - (4) Generally, the information provided in this study is inadequate to allow for full evaluation of test results.
- b. Statistical Analysis: Statistical analysis was not verified due to the lack of dose-response information.
- c. Discussion/Results: The study is invalid and could never fulfill the Guidelines requirement for an acute toxicity determination for a warmwater fish species.

d. Adequacy of Study:

1. Classification: Invalid.
2. Rationale: Does not comply with recommended protocol; inadequate test reporting.
3. Reparability: No.